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## **【204】 Size selection of helium nanodroplets for tailoring synthesis of nanostructures**

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Helium clusters produced via supersonic jet expansions in ultra-high vacuum have wide range of size distributions. Nevertheless, their narrow and size independent velocity distribution has been employed as a key factor for size selection. In this study, same is achieved through passing the ionized helium droplets through deflection in a 90° cylindrical electrostatic sector. This allows precise control of size selection in helium nanoclusters, which further facilitates capping the size of dopant nanostructures. This technique allows creation of clusters and nano-particles in an ultra clean and inert environment without the aid of any ligands, solvent or additives; thereby giving it a significant technological advantage over competing methods.

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